

Remarks/Arguments:

With the Preliminary Amendment, the applicants have canceled claims 1-13 and 15-52, and have inserted therefor claims 53-80. No new matter has been added by the presentation of these claims.

In the Advisory Action of March 2, 2007, the Examiner maintained the final rejection set forth in the Office Action of October 17, 2006. While the Examiner was persuaded that the previously-provided motivation to combine the references was inadequate, the Examiner relied on a new paragraph in Petrow et al. to provide support for the combination. This new paragraph at column 1, lines 47-49 states that "[s]till another object is to provide novel catalytic structures to which such finely deposited platinum particles are adsorbed and adhered." The Examiner appears to be contending that the patentees are referring to support structures *per se*, separate and apart from the particular new form of platinum described in detail by Petrow et al.

The applicants maintain that, when read as a whole, Petrow et al. would only motivate one of ordinary skill in the art to modify Wilkinson et al. by utilizing the particular form of platinum described by Petrow et al. The applicants contend that the cited portion of column 1, lines 47-49 would not have motivated one of ordinary skill in the art to use Petrow et al. as the Examiner proposes given the remaining teachings of Petrow et al.

Moreover, with the present amendments to the independent claims, the applicants have specifically linked platinum to be a gas phase catalyst and to be "directly supported on an electrically non-conducting support." As such, the claims particularly link the first catalytic component to be directly supported on an electrically non-conducting support. Therefore, even assuming that there is some motivation to modify Wilkinson et al. by using the teachings of Petrow et al., there is no specific motivation to lead one of ordinary skill in the art to link the first catalytic component with the electrically non-conducting support.

In any event, with newly added claims 53 and 67, the applicants present a particular combination of features for the first time. Accordingly, if the Examiner is to maintain the rejection using Wilkinson et al. and Petrow et al., he is respectfully asked to identify how these two references render the newly presented claims obvious.

For completeness, the applicants provide the following specific comments below with respect to these two references and why the applicants still maintain that one of ordinary skill in the art would not have modified Wilkinson et al. with Petrow et al. to achieve the claimed invention. These points supplement the arguments made previously and during the Examiner interview.

Wilkinson et al. disclose an electrode having a first and second catalytic component, the first catalytic component being active at gas phase reaction sites and the second catalytic component being active at electrochemical reaction sites. The only mention of possible supports for the first catalytic component is in the examples, where the support is carbon black, an electrically conducting support. Therefore the difference between the disclosure in Wilkinson et al and the current claims is that the first catalytic component is supported on an electrically non-conducting support.


Petrow et al is concerned solely with one particular platinum compound, that is a platinum sulfite acid complex. There is no mention of electrodes having more than one catalyst present and having different functions. Column 4, lines 43 onwards discusses the use of a platinum sulfite acid complex as a catalyst on a carbon black substrate and states that it could be used as a cathode in a fuel cell; the catalyst is functioning as an electrocatalyst. Column 5, lines 10 compares the catalyst formed from the platinum sulfite acid complex with a catalyst formed from Pt metal and states that 10 times the loading of Pt is required for the Pt metal catalyst to achieve the same performance obtained with the platinum sulfite acid complex catalyst. The teaching to the skilled person from reading this is that far superior performance is obtained when using a platinum sulfite acid complex catalyst than when using a Pt metal catalyst.

Column 5, lines 54 onwards then indicate that the catalyst (i.e., the platinum sulfite acid complex catalyst) can also be supported on a refractory non-conductive substrate of alumina. **There is no direct comparison as to how the platinum sulfite acid complex catalyst on carbon compares to the platinum sulfite acid complex catalyst on alumina.** Therefore from reading Petrow et al., the skilled person would not be taught that an improved catalyst could be obtained by replacing the carbon support with alumina. Furthermore, in the current case, it is the gas phase catalyst specifically which is supported on the non-conducting support and there is no mention of this in Petrow et al.

In summary and once again, if the skilled person were to apply the teaching of Petrow et al. to Wilkinson et al., they would replace the Pt metal catalyst with the platinum sulfite acid complex catalyst, as it appears to perform better, and would not be motivated to change specifically the gas phase catalyst support to alumina keeping the catalyst as a Pt metal.

In view of the above-identified amendments and remarks, the applicants respectfully request allowance of claims 53-80.

Respectfully submitted,



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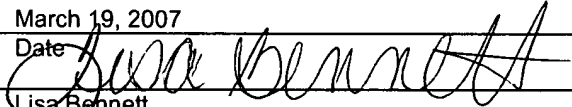
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